

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

TIVO INC.,

Plaintiff,

v.

SAMSUNG ELECTRONICS CO., LTD., and  
SAMSUNG ELECTRONICS AMERICA,  
INC.

Defendants.

Case No. 2:15-cv-1503

**JURY TRIAL DEMANDED**

---

SAMSUNG ELECTRONICS CO., LTD. and  
SAMSUNG ELECTRONICS AMERICA,  
INC.,

Counterclaim Plaintiffs,

v.

TIVO INC.

Counterclaim Defendant.

---

**SAMSUNG'S REPLY CLAIM CONSTRUCTION BRIEF**

## I. INTRODUCTION

Pursuant to P.R. 4-5(c), Samsung submits this reply brief in support of its claim constructions. Samsung notes that TiVo has dropped nine of its proposed constructions for the '592 and '090 patents (i.e., all terms which TiVo initially disputed but for which Samsung asserted that no construction was necessary). Additionally, TiVo no longer opposes Samsung's proposed constructions for the "channel object," "customized list," and "same configuration ..." claim terms of the '043 and '333 patents. Neither party currently proposes any constructions for the '090 patent.

## II. CLAIM CONSTRUCTION ARGUMENTS

### A. U.S. Patent Nos. 5,978,043 and 6,181,333

1. "channel changer" / "graphical channel changer" / "channel selector" / "graphical channel selector" ('043 Patent, claim 1 and '333 Patent, claims 1, 2, 19)

Samsung's Proposed Construction	TiVo's Proposed Construction
"A graphical user interface element including channel objects that allows selection of and tuning to a channel"	"A list of TV channels—from which a TV channel may be selected—that a user may access and navigate independent of an electronic program guide or any program-specific information"

The parties agree that "channel changer," "graphical channel changer," "channel selector," and "graphical channel selector" should share a single construction. Resp., at 3. The parties dispute, however, what that construction should be. For brevity, these claim terms will be referred to as the "channel changer" element.

- a. *Samsung: "a graphical user interface element including channel objects" v. TiVo: "a list of TV channels"*

TiVo "does not deny that . . . the 'channel changer' exists in a graphical display" or "suggest that the 'channel changer' may exist independently of every 'graphical user interface of a television system.'" Resp. at 14-15. Still, apparently motivated by its § 101 defense, TiVo inconsistently proposes that the channel changer is an abstract list, rather than a concrete graphical user interface

(“GUI”) element. D.I. 128 at 1 (arguing that the claims do not “teach an ‘improved [GUI] for controlling a television system’”). This Court should reject TiVo’s litigation-driven construction.

No evidence of record *defines* a channel changer as a mere “list of TV channels.” Resp. at 11. Rather, the evidence shows that the channel changer *includes* a list, or *displays* channel information as a list. For example, ’043 patent claim 1 recites that the customized channel changer *enables a user to select a TV channel among* a customized list. Likewise, the specification teaches that the channel changer *displays* a list of TV channels. ’043 Patent at 10:38-39 (“The graphical channel changer 800 allows the user to include any combination of TV channels into a channel list to be displayed.”); ’333 Patent at 10:12-14 (same). Further, provisional application 60/023,904 teaches that the channel changer portion of the screen “*contains* the list of channel logos.” D.I. 188-1 at 7. These statements do not equate the channel changer to a mere list.

TiVo’s allegations that Samsung enlarges the claim term to capture “any GUI element, irrespective of design, layout, or other functionality” are without merit. To the contrary, Samsung’s construction requires that a GUI element must include “channel objects” to allow “selection of and tuning to a channel.” In turn, the construction incorporates Samsung’s “channel objects” construction limitations. Finally, Samsung’s channel changer encompasses only specific GUI elements, rather than abstract “lists” that TiVo identifies. These limitations nullify TiVo’s criticism.

Further, TiVo incorrectly asserts that “channel objects” are not part of the channel changer. First, TiVo agrees that the ’043 and ’333 patents “claim[] the same ‘channel changer’” and that this term should share the same construction across both patents. Resp. at 3-4. However, in construing the ’043 patent, it ignores the analogous ’333 claims, which recite a channel changer “*having* channel objects.” Second, TiVo misapplies claim differentiation to support its interpretation. ’043 patent claim 2 limits claim 1 by reciting that the channel changers comprise

channel objects for enabling the user to switch the TV channels *by directing a remote pointing device* at said channel objects. The principle of claim differentiation, properly applied, merely means that claim 1 does not require a remote pointing device for changing TV channels. Third, TiVo's suggestion would contradict the specification, which teaches that channel changers include channel objects, as explained in Samsung's opening brief. D.I. 177 at 8-10.

b. *TiVo: "that a user may access and navigate independent of an electronic program guide or any program-specific information"*

TiVo's limitation that the channel changer be navigable and accessible independently from an electronic program guide [EPG] is incompatible with TiVo's evidence, which shows that the channel object is *part* of the graphical [electronic] program guide claimed in the '043 and '333 patents. '333 patent claim 19 recites "arranging a graphical *program guide . . . comprising the steps of . . . displaying [a] graphical channel selector.*" Figures 7, 9, and 10 of the '333 patent depict the channel changer in a program guide mode. Likewise, the '904 application plainly teaches that a channel changer is *part* of the "traditional [EPG]" mode:

Mode 2 is the traditional Electronic Program Guide. However, unlike traditional systems, the EPG on the Samsung GUI "grows" out of the "Channel Changer". By this, we mean that the 2 dimensional program/time grid appears instantaneously aligned with the graphics for the channel changer. There is no

D.I. 188-1 at 7. Even TiVo's expert acknowledges that EPGs may display channel information. D.I. 188-2 ¶ 22 ("EPGs were first developed and popularized in the early 1990s to provide program, *channel*, and time information on the television screen.") (emphasis added). Such is the case here. The '043 and '333 EPGs depict channels with the channel changer, as well as program information.

TiVo's additional limitation that the channel changer be navigable and accessible independently from "program-specific information" is also unsupported. Figures 7, 9, and 10 of the '333 patent depict the channel changer adjacent to program-specific information. Although the

recited channel changer does not necessarily include program information, nothing suggests that a channel changer *must* be capable of existing alone. *AllVoice Computing PLC v. Nuance Commc'ns, Inc.*, 504 F.3d 1236, 1248 (Fed. Cir. 2007) (“[E]very claim need not contain every feature taught in the specification.”). Had the inventors sought to claim such a limitation, they would have drafted different claim language. For example, during prosecution, the patentee temporarily amended the ’333 patent claims to recite “*an autonomous* first mode of operation” and “*an autonomous* second mode of operation.” Ex. D.I. 177-3 at 13-14. Similarly, while TiVo points to the claims of U.S. 6,191,781, which recite that the channel changer transforms into an electronic program guide with graphical options, the ’043 and ’333 patents recite no similar limitation. D.I. 188-3 at 12:53-13:3. Because the patentee chose not to similarly limit the ’043 and ’333 claims, TiVo’s limitation cannot be read into the channel changer claim term.

c. *Samsung*: “allows selection of and tuning to” v.  
*TiVo*: “from which a TV channel may be selected”

The parties agree that the channel changer enables selection of a TV channel, but TiVo challenges the “tuning” part of Samsung’s construction as redundant. Resp. at 12. While selecting may precede tuning, the two are not the same. ’043 Patent at 9:67-10:4 (“[T]he user may *press a select button* on the pointing device to tune to the required channel. *In response to the user command*, the CPU 318 sends a *tune command* to the RF tuner 302 to tune . . . to the required TV channel.”) (emphasis added). “Tuning” refers to dynamically adjusting circuitry to process electromagnetic signals carrying a particular TV channel. *See, e.g.*, ’043 Patent at 1:36-42 (“The satellite receiver tunes, demodulates and otherwise processes the received television signals to provide video and audio signals . . . suitable for processing by the TV set that produces an image on a display screen in response to the video signals, and an audible response by means of speakers in response to the audio signals.”), 2:1-4; D.I. 177-8 ¶¶ 24, 31. By contrast, “selection” refers to

identifying a particular TV channel. Indeed, in certain embodiments channel objects are selected to build a customized list without tuning to a channel. '043 Patent at 3:4-9.

## 2. Unopposed Constructions

TiVo does not oppose Samsung's proposed constructions for "channel object" ('333 Patent, claims 1, 7, 19), "customized list" ('043 Patent, claim 1), or "said customized channel changer having the same configuration as said regular channel changer" ('043 Patent, claim 1). Resp. at 1. This Court should adopt these constructions for the reasons discussed in Samsung's Opening Claim Construction Brief. D.I. 177 at 5-8; D.I. 177 at 10-12; D.I. 177 at 12-13.

## B. U.S. Patent No. 7,231,592

### 1. "home device" ('592 Patent, claims 1, 2, 4-7, 12, 13, 17-19)

Samsung's Proposed Construction	TiVo's Proposed Construction
"A controllable electronic device that is typically found in the home, with the exception of general purpose computers (i.e. personal computers (PCs), laptop computers, etc.)"	"Electronic devices that are typically found in the home, with the exception of general purpose computers (i.e. personal computers (PCs), laptop computers, etc.)"

Samsung has iteratively amended its proposed construction to reduce the parties' disputes. Samsung's proposed construction now mirrors TiVo's, but for two differences—one clerical, one substantive. Samsung's construction is correct on both issues.

Issue #1: Samsung's construction, which recites "a controllable electronic *device*...", matches the singularity of the term "home *device*." TiVo's construction, which requires that a "home *device*" include "electronic *devices*," implies each home device must consist of multiple electronic devices. TiVo may not intend this interpretation, given the specification cannot support it, but Samsung's proposal nonetheless avoids this confusion.

Issue #2: Samsung's construction correctly requires that each claimed "home device" is controllable. In response, "TiVo agrees that the '592 patent was intended to enable 'control and

command of *any device* that is currently connected to' a home network." Resp. at 18. TiVo believes, however, the specification defines "home device" in a manner inconsistent with Samsung's "controllable" requirement. That is incorrect. The '592 patent specification does indeed define the types of prior art devices that could serve as a "home device," in the larger context of the claimed invention. '592 Patent at 1:28-32. The '592 patent, however, was not directed to these admitted prior art home devices "typically found in the home" but was instead directed to novel "home devices" having an interface that made them controllable. *Id.* at 2:23-29 ("It is accordingly an object of the invention to overcome the problems of the prior art, and to provide an interface for accessing home devices ...[and] to provide a method and apparatus for controlling any of a plurality of devices currently connected to the network."). Thus, although the specification defined what prior art hardware *could* be developed into the claimed "home device," the specification further defines a "home device's" requirements, the most critical of which is that it can be controlled. Samsung's opening brief cited portions of the specification that support its interpretation of "home device." D.I. 177 at 14.

TiVo's reliance on one sentence in the specification background notwithstanding, "home device" must be construed in the context of the claims. *Abbott Labs. v. Syntron Bioresearch, Inc.*, 334 F.3d 1343, 1351 (Fed. Cir. 2003). In this regard, claim 1 recites a "first home device" and a "second home device." TiVo concedes that the "second home device" is controllable. Resp. at 19. To prevail, TiVo must therefore show that the "first home device" is not controllable, and TiVo offers but one argument in this regard. TiVo contends that because claim 4 recites "the first home device is capable of being controlled by another home device to perform a function," claim 1 cannot require a controllable first home device because otherwise the claims have identical scope. TiVo misreads the claims. Claim 1's method can be practiced where the "second home device" *or*

“another home device” is capable of controlling the “first home device.” On the other hand, narrower claim 4 requires that the first home device is controllable specifically by “another home device” (i.e. other than the second home device).<sup>1</sup> In both instances, the first home device is controllable regardless of who does the controlling thereof.

2. **“capable of displaying a user interface” (’592 Patent, claim 1)**

<b>Samsung’s Proposed Construction</b>	<b>TiVo’s Proposed Construction</b>
No construction necessary.	“Possessing its own display capability, i.e., comprising a screen for <del>displaying HTML pages content to a user</del> ” <sup>2</sup>

Here, the parties’ primary remaining dispute is: does the phrase “capable of displaying a user interface” mean the device must have its own embedded screen for displaying a user interface? Samsung’s opening brief explained why no such embedded screen is required. D.I. 177 at 17-19. Samsung addresses TiVo’s four arguments for its unjustifiably narrow construction in turn, along with TiVo’s newly-proposed requirement that “user interface” means any “content.”

First, TiVo contends that a device “capable of displaying” must have a display screen. TiVo cannot credibly make this argument. Outside this litigation, TiVo itself uses the phrase “capable of displaying” when describing devices that have their own embedded screen (e.g., a TV) or devices that output video for display on an external, attached screen (e.g., a VCR). Although the TiVo Bolt, for example, lacks an embedded display screen, TiVo’s website claims the Bolt is “capable of displaying 2160p” resolution video<sup>3</sup>:

**TiVo BOLT UESs are capable of displaying 2160p. Roamio Series and Premiere Series DVRs support up to 1080p, and these DVRs record programs in the original quality they are broadcast at, all of these TiVo models can convert incoming**

<sup>1</sup> Claim 4 also requires the claim 2 limitation that the “second home device stores user interface data.”

<sup>2</sup> TiVo’s response dropped its previous argument that any display must consist of HTML pages.

<sup>3</sup> Source: [https://support.tivo.com/articles/Installation\\_Setup\\_Configuration/How-to-Set-the-Video-Output-Format-on-Your-DVR](https://support.tivo.com/articles/Installation_Setup_Configuration/How-to-Set-the-Video-Output-Format-on-Your-DVR) (last visited on Sept. 27, 2016). Consistent with Samsung’s understanding, TiVo’s literature also refers to a TV as “capable of displaying.”



TiVo's argument is inconsistent with how TiVo itself and those of skill in the art use the plain term "capable of displaying."

Second, TiVo inexplicably criticizes Samsung for "seizing" on a description in the specification that rebuts TiVo's proposed construction. The excerpt states that a Digital VCR ("DVCR"), a device without a screen, is nonetheless "capable of" displaying video:

"The particular capabilities of a home device includes (sic) a list of standard named functions that the respective home device is *capable of* performing, e.g., *the capabilities of a DVCR generally include* "accepting video" and "*displaying video.*"

'592 Patent at 16:7-11. TiVo summarily dismisses this disclosure by arguing that the "balance of the specification and the prosecution history...consistently describes devices as capable of displaying a user interface *only* when they possess screens of their own." Resp. at 21 (emphasis added). The disclosure excerpt above contradicts TiVo's premise. Furthermore, TiVo's specification excerpts—unlike Samsung's—do not even use the language "capable of displaying." Resp. at 23. TiVo's citations, instead, only advance Samsung's point. When the patentee intended to narrowly describe a device having its own embedded screen, the patentee stated, using TiVo's cites: (1) that the device displays "on *its viewable display*," (2) that a TV "*comprises a screen* for displaying," or (3) that it referred to a "video display *of a client device.*" Resp. at 23 (citing '592 Patent at 6:49-53, 5:63-6:1, 23:60-64).

Third, TiVo points to excerpts from an Appendix to Provisional Application No. 60/059,499—incorporated by reference into the '592 Patent specification. As an initial matter, TiVo relies on this alleged supporting evidence even though: (1) TiVo never identified it in its P.R. 4-3 disclosure, and (2) Samsung never referenced this provisional application in its opening briefing on this term. In any event, the provisional application disclosure does not support TiVo's construction. An embodiment in this disclosure states "[t]here are *normally* two types of systems:

Client and Server.” D.I. 177-5 at p. 63 of 78. Within that embodiment, the “Client Display Device,” such as a Digital TV (DTV) must be display capable. *Id.* at 39-40. Nowhere in the provisional application does it state that the Server devices, which could send data for display on a separate device (*see id.*) were not also “capable of displaying a user interface,” as that term is used in the ’592 patent claims. To the contrary, the provisional identifies a Digital VCR (“DVCR”) as an exemplary Server device that would send data to be displayed as a user interface on a client. *Id.* at 39. This is the same DVCR discussed in the ’592 Patent specification where it makes clear that, although the DVCR does not have its own screen, “the *capabilities of a DVCR generally include* “accepting video” and “*displaying video.*” ’592 Patent at 16:7-11.

TiVo’s fourth and final argument—that a device “capable of displaying a user interface” must have its own embedded screen—mischaracterizes the ’592 Patent prosecution history. During prosecution, the examiner rejected claims based in part on prior art disclosing a computer that controlled factory robots via a web browser interface. D.I. 188-4 at 6-7. TiVo contends that, in response to this rejection, “patentees acknowledged that the robots described in Suzuki could send information to be displayed to users through network based communications...but nonetheless argued that Suzuki ‘does not disclose that a robot displays a user interface for receiving user input.’” Resp. at 24. TiVo connects unrelated statements in efforts to make its point. First, while the patentee acknowledged that the prior art included “robots with cameras [that] provide images,” neither examiner or patentee discussed whether a robot’s images sent to a computer constituted the claimed “user interface.” Second, the patentee’s arguments were actually focused on the larger phrase “accepting user input from a user by a presently connected home devices that is capable of displaying user input.” The patentee argued that a first robot could not control a second robot in accordance with the claims—even assuming robots could be considered home devices—because

there was no user input accepted that could result in a first robot sending command and control information to a second robot based on that user input. D.I. 188-4 at 22. Contrary to TiVo's insinuation, there was no debate regarding whether an alleged home device must display a user interface on its own embedded screen or can output that interface for display on a separate screen. The '592 file history does not support TiVo's construction and certainly does not amount to a clear and unmistakable disavowal of claim scope that the plain meaning of this term otherwise affords. *Purdue Pharma L.P. v. Endo Pharm. Inc.*, 438 F.3d 1123, 1136 (Fed. Cir. 2006).

TiVo's response also added a new requirement in its revised construction, generating a new dispute. TiVo replaces the plain claim language requiring that a home device be "capable of displaying a *user interface*" with the requirement that it must only display "content" to a user. TiVo does not support its newly-debuted replacement with intrinsic evidence. Moreover, TiVo's proposed construction, read as a whole, also appears nonsensical as it now reads "possessing its own display capability, i.e., *comprising a screen for content to a user.*" Either way, TiVo's proposal contradicts the patent's claims and specification. Claim 1 recites a home device "capable of displaying a user interface" and "accepting user input." The later-recited "controlling [of] the second home device" is done "based on the user input" via the user interface. The specification makes clear that it is the claimed user interface that enables the command and control of home devices. '592 Patent at 2:15-19; 4:12-16. If the claimed "user interface" is replaced with mere display of any "content," the claim no longer makes clear how the home device could accept the user input that leads to the claimed control of the second device. TiVo's construction should be rejected because TiVo offers no support for its untimely addition, and because TiVo's substitution is at odds with the patent's specification and claims.

### **III. CONCLUSION**

The Court should adopt Samsung's proposed constructions for the reasons above.

Dated: October 3, 2016

Respectfully submitted,

By: /s/ Ruffin B. Cordell  
Ruffin B. Cordell  
TX Bar No. 04820550  
cordell@fr.com  
Michael J. McKeon  
D.C. Bar No. 459780  
mckeon@fr.com  
Michael C. Tyler  
TX Bar No. 24051454  
tyler@fr.com  
FISH & RICHARDSON P.C.  
1425 K Street N.W., 11th Floor  
Washington, DC 20005  
Telephone: (202) 783-5070  
Facsimile: (202) 783-2331

Thad Kodish  
Georgia Bar No.: 427603  
TKodish@fr.com  
Christopher O. Green  
Georgia Bar No. 037617  
cgreen@fr.com  
Noah C. Graubart  
Georgia Bar No.: 141862  
graubart@fr.com  
Ajit Dang  
Georgia Bar No. 352611  
Dang@fr.com  
FISH & RICHARDSON P.C.  
1180 Peachtree Street NE, 21st Floor  
Atlanta, GA 30309  
Telephone: 404-892-5005  
Facsimile: 404-892-5002

Melissa R. Smith  
State Bar No. 24001351  
GILLAM & SMITH, LLP  
303 South Washington Avenue  
Marshall, Texas 75670  
Telephone: (903) 934-8450  
Facsimile: (903) 934-9257

melissa@gillamsmithlaw.com

*Counsel for Samsung Defendants*

**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a true and correct copy of the foregoing document was served on TiVo through its counsel of record via email on this 3rd day of October, 2016.

/s/ Melissa R. Smith  
Melissa R. Smith